

FIGURE 1

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1      ccgggacttt ctcagtggagg ctctgtgggct cacctaagaa accagcctcc cttgcaggca
61     acgcctagct ggcctgggtct ggaggctctc ttcaaatatt tacatccaca cccaagatac
121    ggtcttgaga tttgactcgc atgattgcta tgggacaagt tttcatctgc agtttaaate
181    tgtttcccaa cttacattag ggggttggaa ttctagatcg tatttgaagt gttggtgcca
241    cacacacctt aacacctgca cgctggcaac aaaaccgtcc gctctgcagc acagctgggg
301    tcacctgacc tttctcctgt cccccccact tgagctcagt ggctgggcag caggggatgc
361    atggccactg gcggccaggt gcagctctca gctggggtgt tcagaggacg cctgtgtcct
421    cccctcccc cctcctctgt cacccttgga ggcagagaac ttgcccgtc agtcccatgg
481    ggaatgtcaa caggcagggg cagcactgca gagatttcat catggtctcc caggccctca
541    ggctcctctg ccttctgctt gggcttcagg gctgcctggc tgcagggtgcg tccggggagg
601    ttttctccat aaacttgggt gaagggcagt gggcaaatcc aggagccagc ccgggcttcc
661    caaaccccg ccttgctccg gacaccccca tccaccagga gggttttctg gcggctcctg
721    ttcaatttct ttcttctag aaaccagcat ccaggcacag gaggggaggc ccttcttggt
781    agcccaggct ttggcgggat tatttttcaa agaactttag gagtgggtgg tgcttctcgt
841    gccccctgg cctgcctgtt gaggtcggac aagcgcaggg agtctggggc ctctcagagt
901    gcaggaagtg cgcacagggt gctcccaggc tggggagcac aggtaggggg cgtgcgtgg
961    gggatggcgc ctggggcatg ggggatgggg tgtgggaaac ggcattgtgg gcgtaggggg
1021   tggggtgtgg aggatcgggg gtggggatgg cgtgtggggg gtgggggatg ggcctggggg
1081   ggggtggggc tgggaaacag catgtggggc atggggtgtg ggggtgaggt gtgggaaagt
1141   gtgtgggggt tgggggatgg ggcattgaaa gggcgtgtgg ggtgcagggg atggggcatg
1201   gaggtgtggg ggatgggggt tgtggggtgt cggggatggg gcatgtgggg tgtgggggat
1261   ggggcatgga aaggcgtgtg ggggtgcagag gatggggcat ggaggtctgg ggcattgggt
1321   gtgtgggggt tccgggatgg ggcattgaaa ggggtgtgtgg ggtgtggggg tagggtcagg
1381   ggatggcgtg gggggtgtgg catggggatg gcacgtgtgg catggggatg gggatggggg
1441   gtggggcatg gccgagtggg gctggggctg ggaatggtga gtggggcatg gggatggcga
1501   gtgggggtgt tggcgtgagg atggctagtg gggcgtgggg atggcgtgtg gggatggcga
1561   gtgggggtgt ggctgtgagg gacagtgcct gggatgtggc tgcagcccta gctcacagca
1621   tggccttatg accccggcca ccttctgccc caggcggggg cgctaaggcc tcaggaggag
1681   aaacacggga catgccgtgg aagccggggc ctcacagagg tgagcaggga ctgccactgg
1741   ttttgtctct gggccagtg ggggcaacat cacctccttc cctcccatg gcaaagagcc
1801   agcccgcggt gtggctactg cagtgcctcc caaggagggt gtccctgct cgagagggaag
1861   tgaccgctcc agcttggcct tccctgggac tggggtgcag gcattttat cttctttgct
1921   ccattctgtt ccttccagat aatcgtgtgt tcttcatcag gtttctccta gttcttgaga
1981   gcttttctga tgcaaatctg ctttcacccc agggcgggtc ccggctctgc tcacaccagc
2041   ctccaagggt gtgggtgtcc cgggagtgtg ggtgtcccg gggcgtgggt gtcccgggag
2101   tgtgggtgtc ccgggggctg ggggtgtccg ggagtgtggg tgtcccggg gcgtgggtgt
2161   ccggggagtgt tgggtgtccc gggggagtgg gtgtcccggg agtgtgggtg tcccaggggc
2221   gtgggtgtcc cgggagtgtg ggtgtcccgg gggcgtgggt gtcccgggag tgtgggtgtc
2281   ccggaggcga ggggtgtccc ggagtgtggg tgtcccggg gcgtgggtgt cccgggagt
2341   tgggtgtccc gggggagtgg gtgtcccggg agtgtgggtg tcccaggggc gtgggtgtcc
2401   cgggagtgtg ggtgtcccgg gggcgtgggt gtcccgggag tgtgggtgtc ccggagcgag
2461   ggtgtcccgg gagtgtgggt gtcccggggg cgtgggtgtc ccggaggcga ggggtgtcca
2521   ggagtgtggg tgtcccgggg gcgtgggtgt cccgggagtg tgggtgtccc ggaggcgagg
2581   gtgtcccggg agtgtgggtg tcccgggggc gtgggtgtcc cggaggcgag ggtgtcccag
2641   gagtgtgggt gtcccggggg cgtgggtgtc ccgggagtgt ggggtgtcca gaggcgaggg
2701   tatccagaaa gtgtgagtgt cccgggggtg tgggtgtccc gggggcgtgg gtgtcccggg
2761   agtgtgggtg tcccgggggc gtgggtatcc cagaagtgtg agtgtcccag gggcgtgggt
2821   gtcccggggc gtgggtgtcc cgggggtgtg ggtgtcccgg gggcgtgggt tgtcccggga
2881   gcgtgggtgt cggggactgc agggacatg gcctccctc ccaactcctg cgcacagggc
2941   acctcctgtg aggactcgga gtccgtgagt tcccacctc ttgagccga ttctttggtg
3001   tcccgcctg catcctcag ctcttccaa accagaccag ttctctaggg gcgtcgacgt
3061   gtgaaactga ttttaaagaa aacaggcggg ggcctttctc tcggcccccac gtggcccggt

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FIGURE 1 (continued)

3121 agegetcacc ttcggtccct tcttccgcgc tcagtaacca atttaggcgg ctctgtcaga
3181 actcggggtc ctgcccaccg gccacacagc tccacctgag gcctcttctt cccagcaaag
3241 gtcgtccctc cggaaacgcgc ctctgtcggc ctctccagag cccctccgcg gcgtctcttc
3301 agccccgtc gcctcctccc ggggcctccc tctccgcctt gccccaggc cgtctcctt
3361 cgcgggctga ggcaggttcg gcagcacggc gcccgggcg ggggtcactc tccaccaccg
3421 cgtggtgccc acagctcacg gcgtcccggt gtgacgggtc cctcggctgt agggcgtcct
3481 gaagagcggc ctgctcggag ctgagcgcac ggggttgctt gcccctgggc gtctctggcc
3541 ctcaccagcc cgtcttccc atgggcaaaa cggcggtcct gtttgccac aagtaaccgt
3601 cggggttacg gaggggcccag gagctgcggc ggggggctgt gctctcagga ccggccccag
3661 gaggatccgc gcgaggtctg gagctctcag ggttcgggg ggacagaggg gcccaagcg
3721 gaggcgggaa ggcggcagaa gccaggacc gccaaagact ggcgaggaag cccggggtc
3781 gctgtcgggg gagccgggca ggggcgcgc ctcggcacca ggacgcgagg cctgggaagg
3841 cggatctggc cgcgagcacg cgggtcgggt ggagacgcag ggatttgat ttcgcgggc
3901 gctgcacgga tttccacgcg cgggttcact gggccccagg ggggtgcccg caccggggg
3961 cgcgcgcctt tctcctgccc ggcctcgacc cgcagcctca cgtttaccg gcgcgccga
4021 gcccccttcg cccgcttccg cgcgtgcccc cgagcgcgc ctcgggatca gcccccgaa
4081 gcagagaggc caggccggga aggatgggcg aacgggggtg ctagcccggg agcacggcag
4141 ggaggacacc cagccaggcc cgcgagcag gccgctcccc tctccaggga cgggcgggaa
4201 cctgcgatgc ccccgccgcg tgggcctgg ggcgggtctc gaggcactgg gcggggcacg
4261 cgggtgggcg ttcacggaac tcgcatcttc cagtcttctt aaccaggag gaagcccacg
4321 gcgtcctgca ccggcgccgg cgcgccaac cgttctctga ggagctcgg ccgggtctcc
4381 tggagagggg gtgcaaggag gacagtgctt ccttcgagga ggcccggag atcttcaagg
4441 acgcggagag gacggtgagc ccagcctcgg ggcgccccgc gcggacactg caccgcggc
4501 gtgaaccagg ccgcgtgggg ccgcctgcgt ccttttggtt gcggcctgtg gcggcgaaac
4561 acgcagcggc gcccgcggcg gcgtctcttc tgcgggggtc gctttccgcc cggggtgact
4621 ccgctttctt gggcgatgcc cccaccccc ggcacgcgtt ctcctcgtg ggccgcaccg
4681 cgcctgcggg ttttcacatc agaaaatacg atttgacaa gcacacttag ggtgtcccc
4741 tlaacllccc aagggaglc cccagtlccc cyaaglcag ggcagcclgc gcalcycaga
4801 cgcgcgcggc tcgcagaagg gacgtggtga gaagctggcc cacagcatgc caccagcggc
4861 acctcctcag ggcacgtgtc ggggagaaac aacacttagg gacctggga ctttctccag
4921 ctcacgtcga cgggtccacc tcacactacc aagatcacct caatagacgg aactcacac
4981 agggcacact tcacactcac aggtcacctc aactcacag gacacctcac actcacagg
5041 cacacttcac actcacgggt cacctcacac tccaagatca cctaaagagg acactcaca
5101 cagggcacac ttcacactca caggtcacac tcacacaga tcatctcatt ctcacaggac
5161 acctccctct ctcaggtcac ctcacactca caggacacct cacagaggtc acctcacac
5221 cacaggacac ctcacagagg tcacctcaca cggggcacac ttcacactca ggtcacctca
5281 caccacagg acacctcaca gaggtcacct cacacccaca ggacaactca cagagggtcag
5341 ctcacacagg acacctcaca aaggtcacct cacacccaca ggacacctca cactcatagg
5401 cacctcagtc ttacaggaca actcacactc acaggtcacc tatctcacag gacacctcac
5461 actcacaggc caccttactc tcacaggaca cctcacacag ggcacacttc actccacagg
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5641 tctcacagga cacctccctc tcacagggtc cttcacactc atctcacact cacaggtcgc
5701 cacacctcac actcacagga tgcttcacac tcacagaacc acatctcata tgcacaagac
5761 acctcacact caggcacctt catgtcaca gaagcctcac actcacagga ggtccagctg
5821 tctgaggcaa aggctaacat gaccttttc agacaaattg aggatggtca tgcctagcat
5881 ttttatcac ctagttttga aagccttct catctgttgt attctcacag cccccgtga
5941 gtttaagttc aggtggccaa cagtttcttc agcaatcact tttttctgtg gagtgtcttt
6001 gctgtttgtg gaatatattt catctgctac tgcacctct ccccgatgt gtggccacc
6061 tgtcagaggg ggagctgtgg ctcagagcct gtgtacctc tcccagggtc acagctcagc
6121 gacagaagag tcagggttga acctcgggtg ttctgacttg ggagcaggaa atgtgtggtc
6181 acccatagtt ccagatgtcc tggggagggg ccaagattag aagaaacct cctcagctcc
6241 agaggaaagt ctggcttctt gagccacccc cgccagaccc aggtccaagt ccccaaccc
6301 cagttcatgg tgtgtccagt gcttaccgtt ggggtgctct gtgaagggtg atctcacgag
6361 gcttgctctc ttgttctctc agaagctgtt ctggatttct tacagtgggt agtggtgat

FIGURE 1 (continued)

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6421 caccaccagt cctgcctgca acccttctca gcttactgac accagccac tccacagatg
6481 gggaccagtg tgccccaagt ccatgccaga atgggggctc ctgcaaggac cagctccagt
6541 cctatatctg cttctgcctc cctgccttcg agggccggaa ctgtgagacg cgtaaggccc
6601 cactttgggt cccatatttg cagagggccc tggggagctg gtggagggtg cctggccaac
6661 cgggctgcag ggtgcaacaa cctgggtggg tgtgtaggcc gggcattcag ggctcagccc
6721 agttggaaat tgggtctagg gacctttaa tcccttccag tctgagggtc ttgacaggga
6781 cccaagggtt tgattatcag actcagtggc ccccttcgag gtcccggccc tgggcaactt
6841 ctcagccctg gagactggcc cagttgagag tccctgtgtc ccgtgtgccc attccagatc
6901 ccacctagct aggtaccctg ttggtaaact tccccttctc ctactttcca ttacaaaggt
6961 ttgaggggtt tggttttttt ttaaacatc tgaatattaa attaatcaca aagtttaggg
7021 cccccaacct cccctgggtt cagtaattca ctagaaggac acatagaaat caaataatcc
7081 actgagtggg tacactcaca ggtaccgttt attacagcaa aggatgcagg cttaagtctg
7141 cagaggggac agggacaagc ttccccttgt cctctcctgt ggggtcatgt ggacatcctt
7201 aattctccca gaatgacgtg tgacgagaac gtgggaagta ctgccaact tggggaacgc
7261 tacgagcccc gtgtccagag gtttgatcag ggctcaatga catagacca gctgaccagg
7321 cacgcatggc tgacctcagt ctcagccctt ccagagctac gccgataatg cggccaaggc
7381 cccaccatac atcacattgt cagctagacc atccagcatg gctcaaggcc caggtaaaca
7441 ccaacattcc ctcaggcaag accttccaag ggcttagcgg tcatttccca ggagccaagg
7501 caaaggctac cttttctctg gcacagcagt tcctccttga ccaccaaga ccacattctt
7561 aactgaatg agctctcctg tgacagagcc attttcttct ctaagcagaa gagagcccag
7621 caagctggag gaggtgaag agagaggctt cctgctgggt atctgggtcc agaatgcctg
7681 gagatctctg ctcagccctg gtgccagca gccctgggtg gcactctgca gggcagcctt
7741 cccgccggag tccctggactt gctcagggcc actccccttg cccatgtcaa ccaagtcag
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7861 aggggggctc acgggtgtac gaggccagct tggagaactg tctcagctct ctggtcctct
7921 cgtcagttgg gtctctgatt ggaaagtccc ttggacactt taccatcccc attggacttt
7981 cactttcccc caggtccca tcagctgttc ggaagagtgg tcacctgga ggccactgcc
8041 caccagccag gcacccccc aatycaaccy cagccagcac tgccagccac tggcaaggct
8101 gtccagacat gtggctcctc tgatccacgc cttgtccttt ggatcagtc acggagcagt
8161 gtgccaagct caggtctgtt caccacagc tcatgccacc ttccaggcag aacaccactg
8221 ctgaccagag ggcattggca ccccgggggc tggcgtctcg ctgaccccca gaagccctc
8281 tcagggtgtc ccttctctgt cccagacaa ggatgaccag ctgatctgtg tgaacgagaa
8341 cggcggtgtg gagcagtact gcagtacca cacgggcacc aagcgtcctt gtcggtgcca
8401 cgaggggtac tctctgctgg cagacgggtt gtccctgcac cccagaggtg accagcttc
8461 atgtccagat cccagatgac accagtccct gtcccactag gattatctta ctggacaaaa
8521 gacgggtggg actggccttc acatctactg agcactaact atgcactgac caattgtgag
8581 gtgggatctg ggcaccaagg gtggcacagg ccagcagcga ccagtgacta ggatgggcac
8641 cctgggggca atccctgaat ggctcaggg cccctgccaa cttctaggca gaccagggga
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8761 catgaatcta cttcggcaca gccaatgtct gtactgactg ctgcccactc tgcattccaa
8821 aactcgtaaa ggctcctggg aaaatgggat cccactgtct ctaaagaggc ggaacgtgcc
8881 ctgcacttcc aaaagcaggg acaccccaca cccactgtct tgggacctcc tcgggcttcc tttctggccc
8941 caccctggcc acacagcctg ggactcagcc tgccacctcc tcgggcttcc tttctggccc
9001 aagaccttga ttgaagcaga tcaaaactaa gcatgggatc aaaacaacac agtttgattc
9061 atctttaggt agaatttcat tcaccttcta ctaaagtcaa acaacacatc ttctccctga
9121 aaagtgagca gagggcggtt ttaagacgta agcctctgtt tctctccaaa accagccctg
9181 accattgtct cctcagccag cctacttctt aaggccctct catggccggg ccccaccagt
9241 caggccagc cgaggccctg cctccacca cccctgggccc ctgggagctc ctgctcctgg
9301 gggcctccca tagcctcggc ctcaaggcct ctcagaggat ggggtgttct gaattcttcc
9361 tagtggcacg ttcacccctc acaaactctt gcacttttct gacttttgtt ttacacagtt
9421 gaatatccat gtggaaaaat acctattcta gaaaaaagaa atgccagcaa accccaaggc
9481 cgaattgttg ggggcaagg gtgccccaaa ggggagtgtc catggcagggt aaggcttccc
9541 ctggcttcag gattccaagc cctgagggtc ttgaagcctt ttgaatgtga acaacagctc
9601 tgggaaggaa aatgggcagg tcagcccaag cccacaggct ccaagttagc acacctagca
9661 cctccagctc gcggcacccc catgctttta gtggggcaag gaaggagaaa agaaaacgac

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FIGURE 1 (continued)

9721 actcaactgag ggtctaccct gtgcagagaa cctgcgaga tgcccatcc gagggtgtcac
 9781 gtcgtcctca cggttactct ttgaggtggg atctttgcct gatctttgca aaatcaggag
 9841 cattggatca aagctatgtg aagatcctgt gaggtgaaca gtgaaatctc acagcgacat
 9901 ttgtattctt gggccgtgcc caagagcacg tctcggctag agaggggcac agcctcccag
 9961 agccaggtct gaggagcttt gcctgggagg gatctgcaaa gacccagga tttcagaaag
 10021 aaattgtgca atgccagagg ttccttggca tgcccgagg ggcgagtcac cagagaaaca
 10081 atgacagcaa tgtgacttcc acacctcctg tcccccgcc cagggtcctgt tgttggtgaa
 10141 tggagctcag ttgtgtgggg ggacctgat caacaccatc tgggtgggtc ccgcggccca
 10201 ctgtttcgac aaaatcaaga actggaggaa cctgatcgcg gtgctgggtg ggtaccactc
 10261 tccccgttcc gaccgcggtg ctgggtgggt gccactcttc cctgtccgac cgcggtgctg
 10321 ggtgggtgcc actctcccct gtccgaccgc ggtgctgggt gggtgccact ctcccctgtc
 10381 cgaccgcggt gctgggtggg tgccactctc cgctgtccga ccgcggtgct ggttgggtac
 10441 cactctcccc tgtctgaccg cagctctcaa gtgtctcagg ggctgtggct ctgggcttcg
 10501 tgctgtcact tccacagaca gacagacatc cccaaaaggg gagcaaccat gctgggcacg
 10561 actgcctgtg gcaccgtgct ctccagccact ttcccatgcc caaataaaac gataaaagac
 10621 tgggggcttc tgcccatcct gcctcacttg accaagagcc cagaagagga tgcgacaccc
 10681 agggcctcat gggaccaccg gctggcaggg gttctgtctc ctgggtttat ggggtgagacg
 10741 agcactccca ggagggccac tgggcccggg agaactgtgg agaatcgggg cacgcccctgt
 10801 cctcccagct gccagggcac agcatccctt cccacactgc aacacccaga cccagattc
 10861 accccagttc acttgtcccc acacgagcca caggctgcca cctggggcag gctggcccac
 10921 cttgggggta gatgcaggtc ccttgcccc agaaggagac tgcagcccct gcagacctag
 10981 aaatggccac agcccatccc catgcaccag ggggtgaggt ggcaggtggt ggaaaggggc
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 11161 cgacatcgcg gtgctccgcc tgcaccagcc cgtgggtctc actgaccatg tggtgcccct
 11221 ctgctgccc gaacggacgt tctctgagag gacgttgccc ttcgtgcgct tctcattggt
 11281 cagcggctgg ggccagctgc tggaccgtgg cgccacggcc ctggagctca tggctcctca
 11341 cgtgccccgg ctgatgacct aggactgcct gcagcagtc cggaggtggt gagactcccc
 11401 aaatatcacg gagtacatgt tctgtgccgg ctactcggat ggcagcaagg actcctgcaa
 11461 gggggacagt ggagggccac atgccaccca ctaccggggc acgtggtacc tgacgggcat
 11521 cgtcagctgg ggccagggct gcgcaaccgt gggccacttt ggggtgtaca ccagggtctc
 11581 ccagtacatc gagtggctgc aaaagctcat gcgctcagag ccacgcccag gagtccctct
 11641 gcagagccca tttccctagc ccagcagccc tggcctgtgg agagaaagcc aaggctgcgt
 11701 cgaactgtcc tggcaccaaa tcccatatat tcttctgcag ttaatgggg agaggagggc
 11761 atggggagga gggagaggtg gggagggaga cagagacaga aacagagaga gacagagaca
 11821 gagagagact gagggagaga ctctgaggac atggagagag actcaaagag actccaagat
 11881 tcaaagagac taatagagac acagagatgg aatagaaaag atgagaggca gaggcagaca
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 12001 agcctcctta cctcccttca gccaaagccc acctgcacgt gatctgctgg ccctcaggct
 12061 gctgctctgc cttcattgct ggagacagta gaggcagtaa cacacatgga tgcacacaca
 12121 cacacgcaa tgcacacaca cagagatatg cacacacacg gatgcacaca cagatggtca
 12181 cacagagata cgcaaacaca ccgatgcaca cgcacataga gatatgcaca cacagatgca
 12241 cacacagata tacacatgga tgcacgcaca tgccaatgca cgcacacatc agtgcacacg
 12301 gatgcacaga gatatgcaca caccgatgtg cgcacacaca gatatgcaca cacatggatg
 12361 agcacacaca caccaagtgc gcacacacac cgatgtacac acacagatgc acacacagat
 12421 gcacacacac cgatgctgac tccatgtgtg ctgtcctctg aaggcgggtg tttagctctc
 12481 acttttctgg ttcttatcca ttatcatctt caattcagac aattcagaag catcaccatg
 12541 catggtggcg aatgccccca aactctccc caaatgtatt tctccctcg ctgggtgccc
 12601 ggctgcacag actattcccc acctgcttcc cagcttcaca ataaacggct gcgtctcctc
 12661 cgcacacctg tgggtgctgc caccactgg gttgcccag attcattttt ggagcccccg
 12721 gtgctcatcc tctgagatgc tcttttcttt cacaattttc aacatcactg aaatgaaccc
 12781 tcacatggaa gctatttttt aaaaacaaaa gctgtttgat agatgtttga ggctgtagct
 12841 cccagatcc

FIGURE 2

MVSQALRLLCLLLGLQGCLAAGGVAKASGGETRDMPWKP GPHRVFVTQEEAHGVLHRRRRANAFLE
ELRPGSLERECKEEQCSFEEAREIFKDAERTKLFWISYSDGDQCASSPCQNGGSKDQLQSYICFCLPAF
EGRNCETHKDDQLICVNENGGCEQYCS DHTGTRSCRCHEGYSLLADGVSC TPTVEYPCGKIPILEKRN
ASKPQGRIVGGKVCPKGECPWQVLLL VNGAQLCGGTLINTIWVVSAAHCFDKIKNWRNLIAVLGEHD
LSEHDGDEQSRRVAQVIIPSTYVPGTTNHDIALRLHQPVVLT DHVVPLCLPERTFSERTLAFVRFSLVS
GWGQLLDRGATALELMVLNVPRLMTQDCLQQSRKVGDSPNITEYMFCAGYS DGSKDSCKGDSGGPH
ATHYRGTWYLTGIVSWGQGCATVGHFGVYTRVSQYIEWLQKL MRSEPRPGVLLRAPFP